

FIG.1 RELATED ART

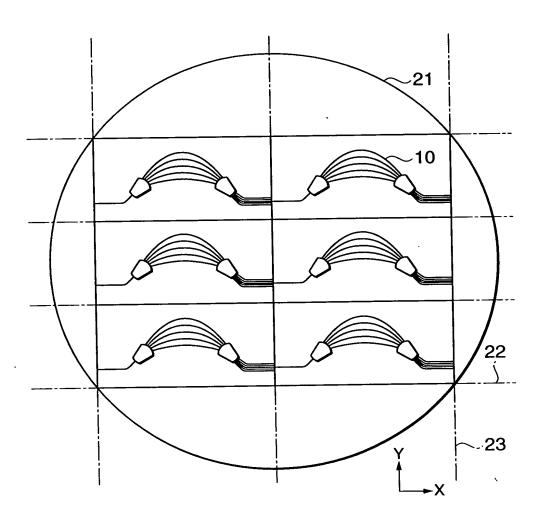


FIG.2 RELATED ART

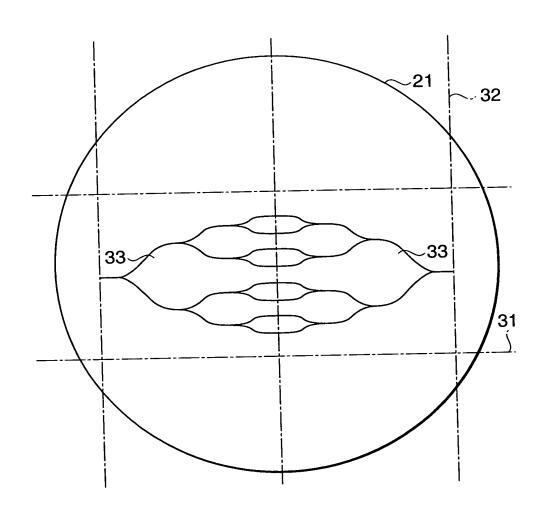


FIG.3 RELATED ART

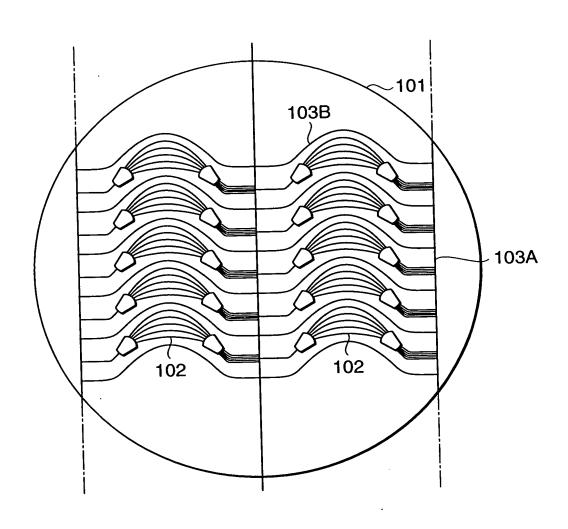


FIG.4

The first time and the first time and the first time and time and

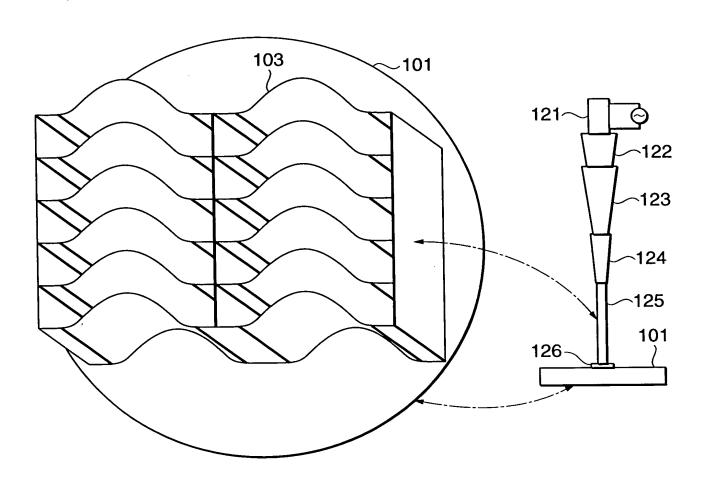


FIG.5

onductor Chip Having an Arrayed Waveguide Gratic Method of Manufacturing the Semiconductor Chip and Module Containing the Semiconductor Chip"

Q67357----Filed February 7, 2002

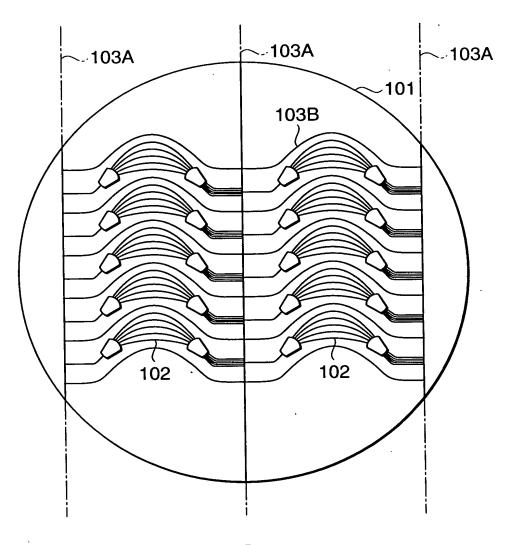
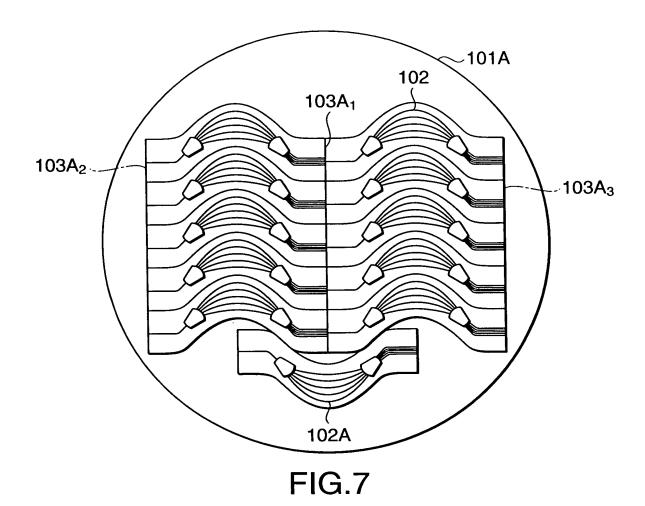
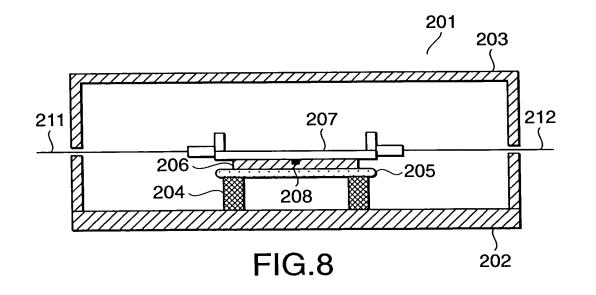


FIG.6

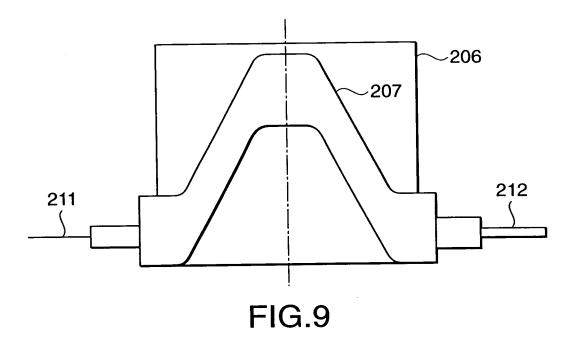


tion had fine to the time to the



onductor Chip Having an Arrayed Waveguide Gratical Method of Manufacturing the Semiconductor Chip and Module Containing the Semiconductor Chip"

Q67357----Filed February 7, 2002



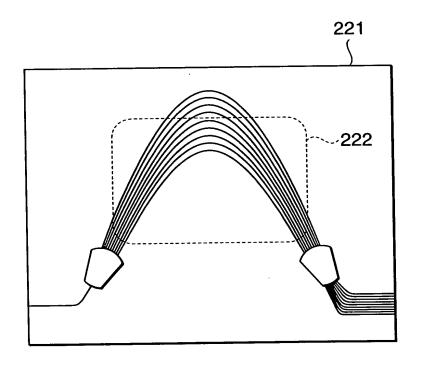
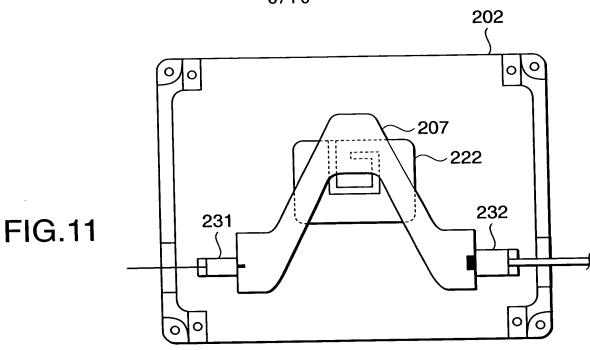
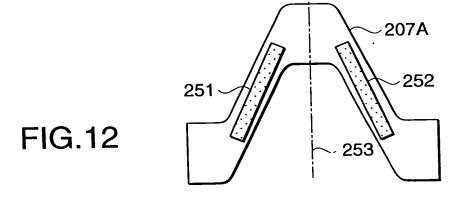
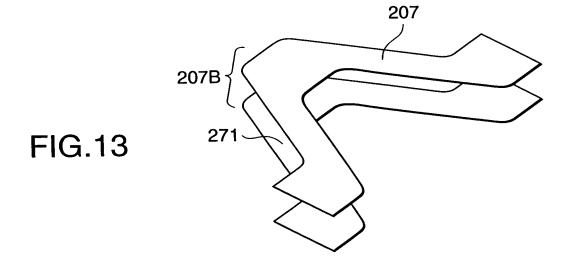


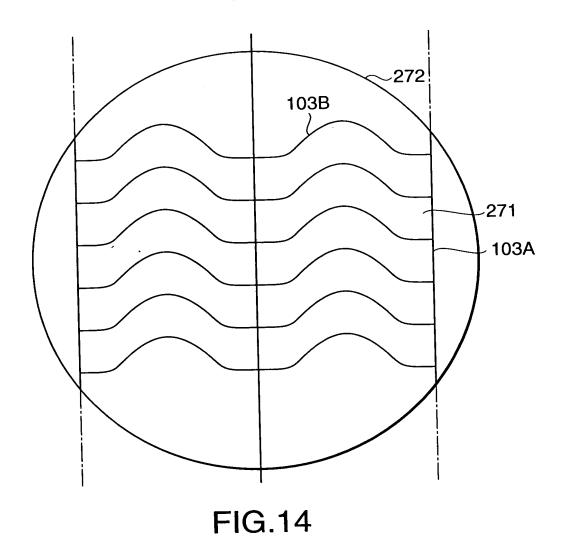
FIG.10







The state of the s onductor Chip Having an Arrayed Waveguide Grati Method of Manufacturing the Semiconductor Chip and Module Containing the Semiconductor Chip" Q67357----Filed February 7, 2002



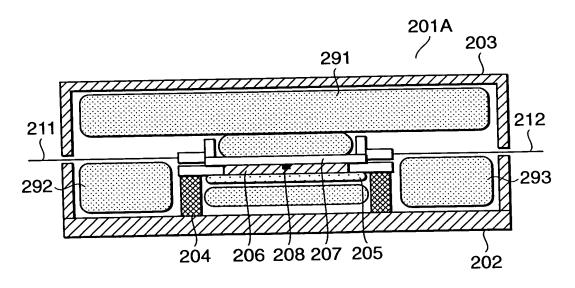


FIG.15

onductor Chip Having an Arrayed Waveguide Grati Method of Manufacturing the Semiconductor Chip and Moothe Containing the Semiconductor Chip" Q67357----Filed February 7, 2002

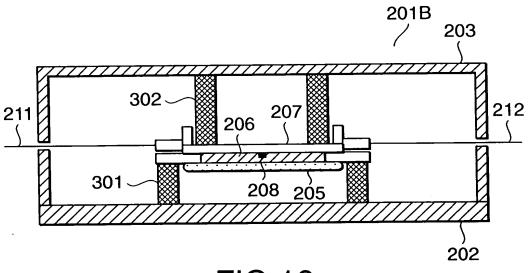


FIG.16

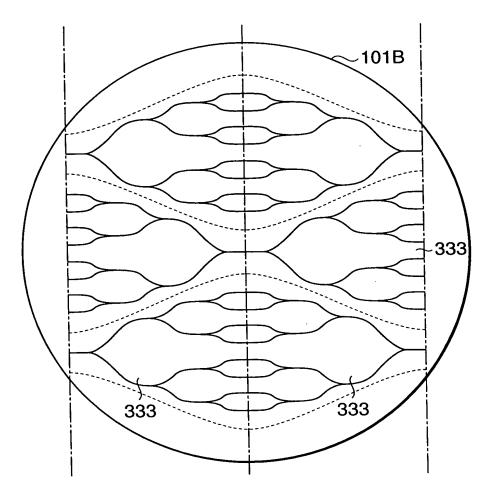


FIG.17